

Executive Summary

Congress directed, in the 1994 National Defense Authorization Act (NDAA), that the Counterproliferation Program Review Committee (CPRC) be established to review activities and programs related to countering proliferation within the Office of the Secretary of Defense (OSD), Department of Energy (DOE), U.S. Intelligence, and the Joint Chiefs of Staff (JCS). The high level national commitment to counter proliferation threats is reflected in the CPRC's membership. It is chaired by the Secretary of Defense, and composed of the Secretary of Energy (as Vice Chair), the Director of Central Intelligence (DCI), and the Chairman of the Joint Chiefs of Staff (CJCS). The CPRC is chartered to make and implement recommendations regarding interdepartmental activities and programs to address shortfalls in existing and programmed capabilities to counter the proliferation of nuclear, biological, and chemical (NBC) weapons of mass destruction (WMD) and their means of delivery. In the 1997 NDAA, Congress broadened the CPRC's responsibilities and specified that the CPRC also review activities and programs of the CPRC-represented organizations related to countering paramilitary and terrorist NBC threats. The findings and recommendations of the CPRC's annual review for 1998 are presented in this, its fifth annual report to Congress.

Organizationally, the Deputy Secretary of Defense has been designated by the Secretary of Defense to perform the duties of CPRC Chairman, and the Assistant to the Secretary of Defense for Nuclear and Chemical and Biological Defense Programs (ATSD(NCB)) has been designated by Congress as CPRC Executive Secretary. The CPRC Standing Committee, established in 1996, meets regularly and is actively working to perform the duties and implement the recommendations of the CPRC. The Standing Committee is composed of the ATSD(NCB) (as Chair); the Director, Office of Nonproliferation and National Security, DOE (as Vice Chair); the Special Assistant to the DCI for Nonproliferation; the Deputy Director for Strategy and Policy, Joint Chiefs of Staff (Plans and Policy, J-5); and the Assistant Secretary of Defense for Special Operations/Low-Intensity Conflict (ASD(SO/LIC)). It should be noted that the Defense Reform Initiative (DRI) currently being implemented within the Department of Defense (DoD) calls for the elimination of the ATSD(NCB) position. The Deputy Secretary of Defense is working to ensure that appropriate DoD officials will continue to support the CPRC and its Standing Committee, consistent with the CPRC's congressional charter.

To guide its program review process, the CPRC established the Areas for Capability Enhancements (ACEs) to characterize those areas where progress is needed to enhance both the warfighting capabilities of the Combatant Commanders, including the Commanders-in-Chief (CINCs), and the overall ability to satisfy the demands of U.S. nonproliferation and counterproliferation policy. The ACEs define those priority areas where additional capabilities are needed to meet the challenges posed by the proliferation of NBC weapons and their means of delivery (NBC/M), including those posed by paramilitary and terrorist NBC threats. They also serve as a basis to assess progress in meeting the mission needs of the CPRC-represented organizations for countering proliferation. The ACEs are reviewed annually to ensure that they continue to reflect the integration of the warfighting needs of the CINCs and the overarching national security objectives they support.

The ACEs reflect evolving needs and shortfalls that change as threats evolve and become better understood and as research and development (R&D) and acquisition programs mature, enabling new operational capabilities. Updated and current ACEs serve to improve the focus of future programmatic and managerial efforts to counter NBC/M proliferation and NBC terrorist threats. Each CPRC-represented organization individually prioritizes the ACEs in accordance with their own departmental mission needs to more accurately reflect each organization's response to countering proliferation and NBC terrorism. The counterproliferation ACEs for 1998 are listed in Table 1. Only one change was made in the ACEs during this year's review. ACE priority 4 (DoD priority) was broadened to include National Missile Defense (NMD) as well as theater ballistic missile active defense.

Table 1: The Counterproliferation ACEs for 1998

ACE Priorities			Areas for Capability Enhancements (ACEs)
DoD	DOE	US INTELL	
1	3	1	Detection, Identification, and Characterization of BW Agents
2	6	3	Detection, Characterization, and Defeat of NBC/M Facilities with Minimal Collateral Effects
3	8	4	Detection, Characterization, and Defeat of Underground Facilities with Minimal Collateral Effects
4	-	2	Ballistic Missile Active Defense
5	2	5	Support for Special Operations Forces and Defense Against Paramilitary, Covert Delivery, and Terrorist NBC Threats
6	4	6	Provide Consequence Management
7	-	7	Cruise Missile Defense
8	7	8	Collection, Analysis, and Dissemination of Actionable Intelligence to Counter Proliferation
9	-	13	Robust Passive Defense to Enable Sustained Operations on the NBC Battlefield
10	-	9	BW Vaccine RDT&E and Production to Ensure Stockpile Availability
11	-	14	Target Planning for NBC/M Targets
12	-	11	Prompt Mobile Target Detection and Defeat
13	1	15	Detection, Tracking, and Protection of NBC/M and NBC/M-Related Materials and Components
14	9	12	Support Export Control Activities of the U.S. Government
15	5	10	Support Inspection and Monitoring Activities of Arms Control Agreements and Regimes

The CPRC focused its annual activity and program review on identifying key R&D and acquisition program accomplishments and milestones illuminating planned near-, mid-, and long-term capability improvements. The CPRC has found that a prudent, time-phased response to the challenges posed by NBC/M proliferation and NBC terrorist threats is in place and solidly under way. Although it will take several years to achieve the goals and objectives of the numerous programs responding to these challenges, the CPRC can report that progress continues to be made in many ACE priority areas. This progress continues to strengthen U.S. capabilities for countering proliferation and NBC terrorism and includes: i) the rapid fielding of essential capabilities; ii) coordinating and focusing interorganizational R&D and acquisition activities; iii) expanding international cooperative activities; and iv) improving the integration, management, and oversight of activities and programs related to countering proliferation and NBC terrorism.

Commensurate with the seriousness of the threat, DoD, DOE, and U.S. Intelligence have each made serious commitments to enhance national capabilities to counter the proliferation of NBC/M and NBC terrorist threats. The combined DoD and DOE investment in countering these threats is over \$6.4 billion for Fiscal Year (FY) 1999, approximately an 18% increase over the FY 1998 total of \$5.4 billion. DoD's investment in areas strongly related to counterproliferation totals over \$5.9 billion in FY 1999, of which nearly \$4 billion is for air and missile defense. This compares favorably with last year's investment of just under \$4.9 billion (a 20% increase due mainly to increases in active defense-related budgets), reflecting DoD's steady commitment in the face of continuing budget constraints. It must be emphasized that counterproliferation efforts leverage the substantial investments made in maintaining the requisite military forces and defense infrastructure necessary to provide for the basic common defense of the United States. DoD budgets the bulk of its counterproliferation investment in air and missile defenses (DoD ACE priorities 4 and 7); supporting inspection, monitoring, and verification activities of arms control agreements (DoD ACE priority 15); maintaining a robust NBC passive defense capability (DoD ACE priority 9); detecting and characterizing biological warfare (BW) agents (DoD ACE priority 1); supporting Special Operations Forces (SOF) and defending against paramilitary and terrorist NBC threats (DoD ACE priority 5); and prompt mobile target detection and defeat (DoD ACE priority 12). All budget figures in this report are from the President's Budget.

DOE continues to increase its investment in nonproliferation activities with \$515.2 million requested for FY 1999, up 5% over last year. As part of its core national nonproliferation program, DOE focuses on the tracking and control of nuclear weapons-related materials and components (DOE ACE priorities 1 and 9), supporting the inspection and monitoring of arms control agreements (DOE ACE priority 5), and defending against and managing the consequences of covert delivery and NBC terrorist threats (DOE ACE priorities 2 and 4). DOE is also continuing its technology development efforts in the detection, identification, and characterization of BW and chemical warfare (CW) agents (DOE ACE priority 3). U.S. Intelligence's investments in programs to counter proliferation are discussed in a separately bound "Intelligence Annex" to this report.

Since the May 1997 CPRC report was submitted, the following key activities have been undertaken and accomplishments achieved by DoD, DOE, and U.S. Intelligence to enhance the interdepartmental response to countering NBC/M proliferation and NBC terrorist threats.

Summary of Key DoD Activities

- ***DoD's Counterproliferation Initiative and the Counterproliferation Council.*** The Defense Counterproliferation Initiative is the DoD-wide effort to meet the military challenges posed by the proliferation of NBC/M. To ensure that DoD's broad counterproliferation policy objectives are met and that implementation of the Counterproliferation Initiative is integrated and focused, the Secretary of Defense established the Counterproliferation (CP) Council composed of senior DoD civilian and military officials in April 1996.
- ***DoD's Counterproliferation Support Program.*** At the heart of DoD's Counterproliferation Initiative is the Counterproliferation Support Program, established in 1994 specifically by the NPRC/CPRC to address DoD shortfalls in counterproliferation capabilities. This program, currently managed by ATSD(NCB), uses its budget to leverage DoD R&D and acquisition programs to meet the counterproliferation priorities of the CINCs and accelerate the deployment of enhanced capabilities to the field. Currently, the Counterproliferation Support Program is targeting several of the 15 ACEs where leveraged support can be decisive. The Counterproliferation Support Program also conducts technology development activities with the DOE National Laboratories, U.S. Intelligence, and several DoD agencies and organizations.
- ***The Counterproliferation CONPLAN 0400 and the CINCs' Counterproliferation Required Capabilities.*** The CJCS's *Counterproliferation CONPLAN 0400*, which directs CINC planning to implement national level counterproliferation policy, has been coordinated by the Joint Staff and is being used by each of the CINCs to develop their own area-specific counterproliferation CONPLANS (concept plans). These area-specific CONPLANS are due to the Joint Staff for review in August 1998. The CINCs' Counterproliferation Required Capabilities are currently being revalidated by the Joint Staff.
- ***Implementing the Comprehensive Nuclear Test Ban Treaty (CTBT).*** Since the establishment of the CTBT Preparatory Commission (PrepCom) and the Provisional Technical Secretariat (PTS) in early 1997, implementation activity has increased considerably. DoD's Deputy for Nuclear Treaty Programs has kept pace with CTBT implementation by enhancing R&D activities to fulfill the President's CTBT Safeguards program; installing Treaty-required International Monitoring System (IMS) stations on U.S. territory and working with over 10 other Treaty signatories on bilateral cooperative IMS installation projects; advancing the transition of the International Data Center to the PrepCom; developing specifications and an international tender offer for the Treaty's Global Communications Infrastructure; and continuing to provide a wide range of technical support to the PrepCom and PTS.
- ***The Quadrennial Defense Review (QDR) and the National Defense Panel (NDP).*** The QDR, issued in May 1997, outlines an overarching defense strategy for the 21st century, including ensuring preparedness against NBC/M proliferation and NBC terrorist threats. Its tenets are to *institutionalize* counterproliferation as an organizing principle in every facet of military activity and *internationalize* these efforts by encouraging friends, allies, and future coalition partners to cooperate with the U.S. in countering these threats. The QDR emphasizes the need for increased focus and funding for enhanced capabilities to counter NBC/M threats, including improving the CW/BW detection and protection capabilities of U.S. forces and maintaining NMD as a high

DoD priority. The NDP report underscores the QDR's findings to improve force protection, detection, and active defense capabilities against NBC weapons.

- ***Counterproliferation Plus-Up Funding.*** In the QDR, the Secretary of Defense directed a \$1 billion increase in funding over the Future Years Defense Plan (FYDP, i.e., FY 1999-2003) to address shortfalls in counterproliferation-related capabilities, primarily for protective measures against CW threats. The budget issue review team, composed of OSD, Joint Staff, and military department representatives, allocated \$732 million for passive defense programs, \$146 million for counterforce programs, and \$87 million for U.S. Special Operations Command (USSOCOM) programs. A planned increase of \$35 million for active defense programs was not allocated.
- ***Ongoing Advanced Concept Technology Demonstrations (ACTDs).*** To accelerate the fielding of advanced technologies and capabilities to counter NBC/M threats, four ACTDs are under way: i) the first Counterproliferation Counterforce CP1 ACTD is enhancing capabilities for defeating CW/BW targets, ranging from soft aboveground facilities to hardened underground facilities, with minimal collateral effects; ii) the follow-on Counterproliferation Counterforce CP2 ACTD is providing expanded options for defeating hardened and underground NBC/M targets while minimizing collateral effects; iii) the Joint Biological Remote Early Warning System (JBREWS) ACTD is providing enhanced capabilities for early warning of BW attacks; and iv) the Portal Shield (formerly Air Base/Port) ACTD is improving capabilities for detection and warning of BW attacks at fixed facilities.
- ***Proposed Restoration Operations ACTD.*** As a result of the Consequence Management 911-Bio ACTD, the "Chem War 2000" exercise, and a number of studies conducted by the Air Force and the Joint Staff, a new "Restoration Operations" ACTD is under development to examine the doctrine, tactics, techniques, procedures, and equipment required to recover quickly from CW/BW attacks on ports, airfields, and other fixed sites.
- ***Hard, Deeply Buried, and Tunnel Target Defeat Programs.*** The Joint Service Hard and Deeply Buried Target Defeat Capability acquisition program is analyzing over 60 weapon system concepts and plans to recommend a small subset for further development to the Defense Acquisition Board in October 1998. The Defense Special Weapons Agency (DSWA) Hard Target Defeat and Tunnel Defeat Demonstration programs continue to evaluate technology and operational needs for detecting, characterizing, and defeating this class of targets.
- ***Reprioritized Funding for USSOCOM.*** Counterproliferation is a principal mission of USSOCOM, and Special Operations Forces may be called upon to enforce U.S. counterproliferation policy long before the authorization of direct military action. SOF can carry out measures to interdict shipments of NBC weapon-related materials, provide deep reconnaissance to locate NBC/M, and conduct precision strikes to capture or neutralize them. In recognition of these capabilities, the Deputy Secretary of Defense has again directed additional funding to supplement SOF-related budgets over the FYDP.
- ***DoD's Force Protection Initiative.*** Efforts by the CINCs, Services, DoD agencies, and the Joint Staff to enhance force protection capabilities (including against NBC weapon threats) for U.S.

forces worldwide continue. Requirements are being defined, and R&D and equipment needs are being coordinated throughout DoD. Force protection site assessments are being conducted by DSWA, and 100 assessments are planned during 1998.

- ***The Domestic Preparedness Initiative.*** DoD is the lead federal agency in enhancing local first responder capabilities to respond to terrorist incidents involving NBC weapons. Led by ASD(SO/LIC), DoD is: i) conducting “Train the Trainer” programs for emergency responders in the 120 largest U.S. cities; ii) establishing a Joint Chemical Biological Rapid Response Team and enhancing the Chemical Biological Incident Response Force (CBIRF); iii) supporting the 911-Bio ACTD and other R&D activities to improve consequence management capabilities; iv) establishing satellite broadcast training and Chemical/Biological and Stress Management Special Medical Augmentation Response Teams for the medical management of CW/BW casualties; and v) working closely with the Federal Bureau of Investigation (FBI), the Federal Emergency Management Agency, and other federal, state, and local authorities to provide DoD-unique NBC response capabilities and expertise to improve overall intergovernmental emergency response.
- ***Key Active Defense Activities.*** Following a “family of systems” approach, DoD continues to press forward in the development and deployment of enhanced systems for active defense against ballistic missile, air, and cruise missile threats. Elements of the PATRIOT Advanced Capability (PAC-3) system are being deployed, and procurement of additional assets is under way. PAC-3 and Navy Area Defense system testing and upgrades development are continuing. Theater-wide defense systems and the Airborne Laser are on track to reach their scheduled deployment targets. The National Missile Defense program is in the final stages of selecting a Lead System Integrator and on track for an FY 2000 deployment decision. As a result of congressional plus-up funding, several active defense programs were restructured to accelerate their development pace and reduce technical risk through additional testing.
- ***Key U.S. Air Force Counterproliferation Activities.*** The Air Force developed a comprehensive Master Plan for Counterproliferation describing its strategy as a force developer and provider by assessing capabilities, defining Air Force counterproliferation requirements to support the warfighting CINCs, identifying shortfalls and deficiencies across the counterproliferation mission spectrum, and prescribing measures to correct them. The *Counter Chemical and Biological Warfare Roadmap* was developed to further define Air Force counterproliferation capabilities. Based on CINC war game results, three new studies were initiated: *Counter Chemical and Biological Warfare Operations Counterforce*, *Sustaining Air Mobility Operations in a WMD Environment*, and *Fighting the Base*. To address one important shortfall, the Air Force has undertaken concept exploration to identify the most promising alternatives to neutralize or defeat CW/BW agents while minimizing collateral damage and effects. The Air Force also established two integrated process teams (IPTs): the NBC Ability-to-Survive-and-Operate IPT and the Nuclear and Counterproliferation IPT.
- ***The Joint Vaccine Acquisition Program for Biological Defense.*** The need to produce vaccines at a pace rapid enough to match any anticipated battlefield demand is a high CPRC and CINC priority. A solid acquisition strategy based on comprehensive analyses is in place, and a 10-year prime systems contract to develop and procure Food and Drug Administration (FDA)-licensed vaccines to protect U.S. forces from BW agents was awarded in November 1997. Inoculation of

active duty and reserve forces with a commercially available, FDA-licensed anthrax vaccine is under way.

- ***Science and Technology Strategic Planning for Counterproliferation.*** The strategic planning process for DoD's science and technology (S&T) program was enhanced again this year with the issuance of DoD's third *Joint Warfighting S&T Plan*. "Chemical/Biological Warfare Defense and Protection" and "Counter Weapons of Mass Destruction" are two of the ten Joint Warfighting Capability Objectives identified in the plan. The *Joint Warfighting S&T Plan* is incorporated into the Defense Planning Guidance, and its Joint Warfare Capability Objectives receive funding priority in DoD's FYDP.
- ***Other Key DoD Activity and Program Accomplishments.*** Well over 100 DoD programs are strongly supporting national efforts to counter NBC/M proliferation and NBC terrorist threats. Over the past four years, substantial progress has been made in these programs and other activities to improve fielded counterproliferation, nonproliferation, and NBC counterterrorism capabilities and to establish the necessary groundwork for continued advances. Selected accomplishments of these activities and programs are highlighted in Table 2.

Summary of Key DOE Activities

- ***Chemical and Biological Agent Detection R&D.*** This program was established at congressional direction in recognition of the Department's significant expertise in the chemical and biological sciences resident at the National Laboratories. The development and selection of R&D projects is closely coordinated with DoD and U.S. Intelligence. Projects have been funded based on the Laboratories' expertise and potential to address CW/BW military defense needs and the consequence management needs of civilian first responders.
- ***Detecting and Characterizing Worldwide Production of Nuclear Materials and Weapons.*** DOE continued development of complementary active and passive remote sensing technologies to detect and characterize foreign nuclear materials production activities. Acquisition of special nuclear materials is the most important step in nuclear weapons proliferation. Therefore, the ability to detect the processes associated with the production of special nuclear materials is a critical proliferation prevention capability, and the ability to detect such production remotely is a powerful deterrent. A highlight during the past year was the ground-based demonstration of a hyperspectral infrared imaging spectrometer to detect and identify proliferation-related effluents.
- ***Monitoring Worldwide Nuclear Testing.*** DOE continues to develop ground-based technical methods specifically intended to support the CTBT IMS. By providing critical forensic data and unequivocal proof of a nuclear detonation, radionuclide monitoring techniques serve as an important tool for CTBT verification. DOE developed an automated radionuclide particulate detector that was commercialized by the Air Force. The detector system was delivered to the Air Force in January 1998. The prototype of an automated xenon gas detector will be delivered

Table 2: Highlights of DoD's Response to the Counterproliferation ACEs

DoD ACE Priority	Selected Accomplishments in DoD Counterproliferation Programs
1. Detection, Identification, and Characterization of BW Agents	<ul style="list-style-type: none"> • Developing the Joint Biological Point Detection System for all Services • Accelerated development of advanced early warning BW agent detection systems • Continuing the Portal Shield ACTD and the JBREWS ACTD • Continuing production of the Biological Integrated Detection System P3I to equip a second Army BW detection company
2. Detection, Characterization, and Defeat of NBC/M Facilities with Minimal Collateral Effects	<ul style="list-style-type: none"> • Conducted integrated sensor, weapon, and targeting tool field tests for NBC/M and underground facility defeat and collateral effects mitigation as part of the Counterproliferation CP1 ACTD • Initiated the follow-on Counterproliferation Counterforce CP2 ACTD • Agent defeat weapons system concepts collected from industry and DoD/DOE labs for evaluation
3. Detection, Characterization, and Defeat of Underground Facilities with Minimal Collateral Effects	<ul style="list-style-type: none"> • Initiated the joint DSWA/DIA Tunnel Defeat Demonstration Program, integrating intelligence, operational, and acquisition priorities for tunnel defeat • See ACE #2 entries above
4. Ballistic Missile Active Defense	<ul style="list-style-type: none"> • Several programs restructured to accelerate acquisition and reduce technical risk • Successful flight tests for PATRIOT PAC-3 missile and NMD kill vehicle concepts • Airborne Laser successfully completed PDRR Program Requirements Review and scaled laser tests; fabrication of the first laser module initiated • THAAD and Airborne Laser components exercised in various field exercises • Navy initiated actions to accelerate Navy Area TBMD ship deliveries within FYDP • National Missile Defense elevated to Major Defense Acquisition Program and Lead System Integrator contractor to be selected in May • SBIRS-High EMD contract for 5 satellites awarded and Preliminary Design Review completed • Theater ballistic missile defense lower-tier system procurement transitioned back to BMDO
5. Support for Special Operations Forces and Defense Against Paramilitary, Covert Delivery, and Terrorist NBC Threats	<ul style="list-style-type: none"> • Continued development of specialized technologies and equipment prototypes to assist SOF and Explosive Ordnance Disposal teams in countering CW/BW threats • Enhanced coordination of Joint Service exercises and readiness sustainment activities • Formed organizational structure and initiated facility assessments to enhance U.S. force protection
6. Provide Consequence Management	<ul style="list-style-type: none"> • Improved the Marine Corps Chemical Biological Incident Response Force • Provided consequence management training for First Responders to respond to CW/BW attacks • Provided satellite broadcast training on medical management of BW casualties • Establishing regional Army Special Medical Augmentation Response Teams
7. Cruise Missile Defense	<ul style="list-style-type: none"> • Technology sharing and synergy with ballistic missile defense programs is continuing
8. Collection, Analysis, and Dissemination of Actionable Intelligence to Counter Proliferation	<ul style="list-style-type: none"> • <i>Athena</i> counterproliferation intelligence "information space" under development to support mission planning and operations • See the Intelligence Annex to this report for additional programs
9. Robust Passive Defense to Enable Sustained Operations on the NBC Battlefield	<ul style="list-style-type: none"> • Continued deployment of critical NBC detection and warning, individual and collective protection, and decontamination systems for use throughout the battlespace • Continuing advances in CW/BW medical defense RDT&E • Additional funding for CW/BW defensive equipment to meet operational requirements
10. BW Vaccine RDT&E and Production to Ensure Stockpile Availability	<ul style="list-style-type: none"> • Prime systems contract awarded in November 1997 for the Joint Vaccine Acquisition Program • Fulfilled DoD prescribed stockpile level of anthrax vaccine • Decision to vaccinate U.S. forces against anthrax; vaccinations under way
11. Target Planning for NBC/M Targets	<ul style="list-style-type: none"> • User acceptance of integrated target planning and weaponeering tools by CINC USEUCOM for use in Bosnia as part of Operation Joint Endeavor along with other upgrades from the CP1 ACTD • CW/BW agent defeat assessment tools under development
12. Prompt Mobile Target Detection and Defeat	<ul style="list-style-type: none"> • Development of a foliage penetrating radar and other sensors to defeat camouflage, concealment and deception; new capabilities for near real-time exploitation of wide area imagery • Demonstrated operational utility of C4I systems for rapid dissemination of intelligence to users
13. Detection, Tracking, and Protection of NBC/M and NBC/M-Related Materials and Components	<ul style="list-style-type: none"> • Deployment of prototype Specific Emitter Identification System for identifying ships at sea suspected of transporting NBC/M or related materials; fleet integration via upgrades of existing signal processors with an SEI capability scheduled for FY 1999.
14. Support Export Control Activities of the U.S. Government	<ul style="list-style-type: none"> • Reviewed over 21,000 export license applications for military and dual-use technologies • Enhanced the "Wassenaar Arrangement," a new multinational export control framework • Militarily Critical Technologies List Part II, <i>WMD Technologies</i>, published
15. Support Inspection and Monitoring Activities of Arms Control Agreements and Regimes	<ul style="list-style-type: none"> • Helped Ukraine, Belarus, and Kazakhstan to become non-nuclear weapons states • Technology R&D for CW/BW arms control treaty implementation, monitoring, and verification • Continued inspection, monitoring, and escort support for NBC weapon arms control treaties • Eliminated 84 SLBM launchers, dismantled 255 ICBMs and 37 heavy bombers, and sealed 117 of 194 nuclear weapons test tunnels and bore holes in FSU states • Consolidated funding of R&D programs under DSWA to improve CTBT implementation • Continued development of a global continuous threshold monitoring network and data fusion knowledge base and communications network for CTBT verification

to the Air Force and follow the same path for commercialization during FY 1998. Both detector systems will be available for use by the CTBT IMS.

- ***Securing Nuclear Materials in Russia and States of the Former Soviet Union (FSU).*** Material protection, control, and accounting (MPC&A) cooperation is now under way at over 50 sites across Russia and the FSU states, providing improved security for approximately 650 metric tons of weapons-useable nuclear material (i.e., in the form of metals, oxides, solutions, and scrap). This is enough material to produce over 40,000 nuclear weapons. Cooperation now includes virtually all known sites possessing such materials. The program anticipates completing upgrades at these sites by the end of 2002.
- ***Initiative for Proliferation Prevention with Russia and FSU States.*** The main objectives of this program are to identify and develop nonmilitary applications for defense technologies and create long-term jobs for FSU weapons scientists and engineers. To date, more than 375 projects have been initiated, including over 300 laboratory-to-laboratory projects and over 75 industry cost-sharing projects. About 85% involve institutes in the Russian Federation. While emphasis remains on nuclear technology, the scope of the program includes chemical and biological technologies as well. Because of this program, more than 3,000 former weapons-related technical personnel are now engaged in non-weapons-related projects involving materials science, biotechnology, instrumentation, and medical isotopes.
- ***Strengthening the Nuclear Nonproliferation Regime.*** DOE's efforts have helped to promote adherence to the Nuclear Non-Proliferation Treaty (NPT), increase the effectiveness and efficiency of the International Atomic Energy Agency (IAEA), and promote regional nonproliferation measures. DOE, with support from the National Laboratories, provides equipment, technologies, and expertise to the United Nations Special Commission (UNSCOM) on Iraq and the IAEA that assist in monitoring and performing intrusive inspections in Iraq and North Korea for verifying compliance with the NPT.

Summary of Key U.S. Intelligence Activities

Many of U.S. Intelligence's activities cannot be described in this unclassified setting. The classified Intelligence Annex to this report contains a more thorough discussion of the activities and successes of U.S. Intelligence.

- ***Intelligence Community Support for Counterproliferation.*** In response to the CJCS's *Missions and Functions Study* and the *Counterproliferation CONPLAN 0400*, U.S. Intelligence continues to work closely with the Joint Staff in support of the CINCs. The Defense Intelligence Agency's (DIA) Office for Counterproliferation Support, the Joint Staff's (J-2, Intelligence) executive agent for counterproliferation issues, continues to implement its CJCS-approved *Military Intelligence Action Plan*.
- ***Strategic Planning Process.*** U.S. Intelligence, through its corporate strategic and evaluation planning process, continues to develop new initiatives to support efforts to counter proliferation. This ongoing process contributes to the National Needs Process and the National Foreign

Intelligence Program, the Joint Military Intelligence Program, and the Tactical Intelligence and Related Activities Program and Planning Guidance. A major benefit of this effort has been the placement of a number of DoD personnel within the DCI's Nonproliferation Center. This has helped integrate intelligence support into DoD counterproliferation needs and actions. U.S. Intelligence continues to expand its relations with law enforcement officials to assist in developing initiatives to counter proliferation. The FBI and U.S. Customs Service, for example, have assigned senior agents to the Nonproliferation Center to assist in this endeavor.

- **Operational Planning Process.** DIA is linking counterproliferation intelligence production more directly to the CINCs' planning process. DIA is taking guidance from the Joint Strategic Capabilities Plan and direction from the CINCs' J-2s, J-3s (Operations), and J-5s, enabling U.S. Intelligence to more clearly define and satisfy the intelligence requirements necessary to support CINC counterproliferation contingency planning and operations.
- **Intelligence Successes.** Some intelligence successes that can be described here include:
 - Support to State Department efforts providing actionable intelligence to UNSCOM's inspection and monitoring activities in Iraq;
 - Continued efforts to provide law enforcement officials with indicators that CW and BW are about to be used;
 - Support to congressional committees, including a report that reviewed and evaluated nonproliferation programs in the National Foreign Intelligence Program FY 1998 budget submission; and
 - Refining a detailed set of information needs, known as, *Nonproliferation: Compendium of Country-Specific Priority Intelligence Needs and Actions*, to guide intelligence collection and analysis.

CPRC Findings and Recommendations

The CPRC finds, as evidenced by the numerous program and activity accomplishments cited in this report, that the seriousness of NBC/M proliferation and NBC terrorist threats, and the need to enhance capabilities to counter them, are recognized throughout DoD (including OSD, the Joint Staff, Services, and CINCs), DOE, and U.S. Intelligence. "Countering proliferation" is now an established and institutionalized priority within each of the CPRC-represented organizations. The development of capabilities to counter NBC terrorist threats is also beginning to receive added attention throughout DoD, DOE, and U.S. Intelligence. These efforts reflect the President's firm commitment to stem NBC/M proliferation and negate terrorist NBC threats. Moreover, as decision makers, policy makers, and warfighters continue to reprioritize their nonproliferation, counterproliferation, and NBC counterterrorism policy and strategy objectives, the CPRC will continue to review related DoD, DOE, and U.S. Intelligence activities and programs to ensure that they continue to meet evolving needs and requirements. The CPRC's recommendations for 1998 are summarized in Figure 1 and discussed below.

Recommendations of the CPRC

1998

- **Approve the President's FY 1999 Budget for the CPRC-Represented Organizations Addressing Key Priorities in Countering Proliferation and NBC Terrorism**
- **Continue to Address the Needs and Requirements for Countering Proliferation and NBC Terrorism as High Priority Items in Annual Budget Development Processes**
- **Continue Close Coordination of R&D and Acquisition Activities and Programs among DoD, DOE, and U.S. Intelligence, Including the Continuation of Working Groups in the Following Areas:**
 - Establishing validation standards for NBC hazard prediction models
 - Integrated R&D planning for advanced hyper-/ultra-spectral CW/BW detectors
 - Integrated R&D and acquisition planning for unattended ground sensors
- **Expand International Cooperative Activities and Engage International Partners in Countering Global NBC/M Proliferation and NBC Terrorist Threats**
- **Review and Reprioritize the Counterproliferation ACEs to Reflect Progress and Newly Emerging Priorities**

Figure 1. CPRC Recommendations for 1998

The FY 1999 President's budget addresses priority activities and programs for countering NBC/M proliferation and NBC terrorism. *Therefore, the CPRC recommends that the FY 1999 President's budget for each of the CPRC-represented organizations be authorized and appropriated by the Congress.*

Countering proliferation and NBC terrorism are challenges that will have to be addressed for the foreseeable future. Although the activities and programs proposed in the FY 1999 President's budget will continue to produce substantial progress in national capabilities to counter NBC/M proliferation and NBC terrorist threats, areas of capability shortfall will remain. *Therefore, the CPRC directs each represented organization to continue to address nonproliferation, counterproliferation, and NBC counterterrorism needs and requirements as high priority items in their FY 2000 and out-year budgets.* In light of the CPRC's finding that the need to enhance U.S. national capabilities to counter proliferation is established and institutionalized within the DoD, DOE, and U.S. Intelligence, the CPRC has not identified specific programmatic options for FY 2000. The CPRC expects the normal budget development processes of each CPRC-represented organization to be adequate to ensure a robust, integrated program for countering proliferation and

NBC terrorism and satisfy congressional direction to formulate future programmatic options. However, key areas for progress addressing certain specific aspects of the ACE priorities have been identified for special consideration during budget development activities (see Section 9, Table 9.2).

The CPRC recommends a continuation of the close coordination of counterproliferation-related R&D and acquisition activities and programs among DoD, DOE, and U.S. Intelligence. To this end, the CPRC directs the CPRC Standing Committee to continue to maintain its interorganizational coordination and oversight of R&D and acquisition activities and programs to ensure that the integrated response of DoD, DOE, and U.S. Intelligence in meeting the ACE priorities, which has characterized their cooperation to date, continues.

Last year, the CPRC established Working Groups in three specific areas where improved interorganizational coordination can improve the efficiency, cost-effectiveness, and responsiveness of R&D and acquisition activities. These Working Groups are actively working toward: i) establishing and implementing “validation standards” for NBC weapon effects dispersion and hazard prediction models; ii) developing a user/developer integrated cooperative R&D plan for advanced state-of-the-art active/passive hyper-/ultra-spectral sensors for chemical and biological detection to improve coordination and synergize the efforts of the ongoing R&D activities of the CPRC-represented organizations; and iii) developing a user/developer integrated R&D and acquisition plan for unattended ground sensors to improve cooperation within the developer community and enhance prospects for user acceptance and “buy-in” of this maturing technology. The Working Groups have made progress in pursuing their goals and objectives, including, in particular, improving user involvement in the R&D/acquisition process. *The CPRC recommends that these Working Groups continue their activities, working closely with the Nonproliferation and Arms Control Technology Working Group (NPAC TWG) R&D Focus Groups and other appropriate interagency and departmental entities, until their objectives have been met or until the CPRC is satisfied that their functions can be assumed by the appropriate R&D/acquisition authorities.*

Recognizing the global nature of NBC/M proliferation and NBC terrorist threats, *the CPRC recommends continuing the development of international cooperative efforts to counter these threats by expanding existing cooperative activities in R&D, proliferation prevention, and NBC counterterrorism being conducted by DoD, DOE, and U.S. Intelligence and by working with the policy community to engage international partners to participate in cooperative R&D and acquisition efforts in the future.* The CPRC’s immediate goal is to facilitate a broad interagency discussion among CPRC-represented organizations to encourage the establishment of additional international cooperative R&D efforts (beyond NATO), while expanding existing cooperative efforts, and, eventually, to explore possibilities for establishing joint acquisition programs. The CPRC continues to encourage and endorse cooperation with our international partners through joint activities and programs, including international information-sharing conferences and outreach programs addressing the threats of NBC/M proliferation and NBC terrorism.

The CPRC, through its Standing Committee, will continue to review and update the counterproliferation ACEs, reprioritizing them as required. This process is central to ensure that the ACEs continue to reflect the integration of CINC warfighting required capabilities and the overarching national security policy and strategy objectives they support. Updated and relevant ACEs assist the CPRC in meeting its program review responsibilities, while improving the focus of future programmatic and managerial efforts among the CPRC-represented organizations to counter NBC/M proliferation and NBC terrorist threats.

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